

KRAL, Josef; RIECAN, Beloslav

Note on the Stokes formula for 2-dimensional integrals in n-space. Mat fys cas SAV 12 no.4:280-292 '62.

1. Katedra matematicke analyzy, Karlova univerzita, Praha 2, Ke Karlovu 3 (for Kral). 2. Katedra matematiky, Slovenska vysoka skola technicka, Bratislava (for Riecan).

JELINEK, Jiri; KRAL, Josef

Note on sequences of integrable functions. Chekhosl mat zhurnal
13 no.1:114-126 Mr '63.

1. Matematicko-fyzikalni fakulta, Karlova universita, Praha 2,
Ke Karlovu 3.

KRAL, Josef

A note on perimeter and measure. Chekhosl mat zhurnal 13 no.1:1304
147 Mr '63.

1. Matematicko-fyzikalni fakulta, Karlova universita, Praha 2,
Ke Karlovu 3.

KRAL, Josef

Some inequalities concerning the cyclic and radial variations of a plane path-curve. Chekhosl mat zhurnal 14, no. 2:271-280 '64.

On the logarithmic potential of the double distribution.
Ibid.:306-321

1. Institute of Mathematics, Czechoslovak Academy of Sciences,
Prague 1, Zitna 25.

KRAL, Josef

Non-tangential limits of the logarithmic potential. Czechoslovak
zhurnal 14 no.3:455-482 1964.

1. Faculty of Mathematics and Physics, Charles University, Prague
2. Sokolovska 83.

KPAL, Karel

Trade-union members from 27 countries. (no. 2:42-45)
J1 199. (1:42 10:8)
Czechoslovakia--Trade union

KRAL', Karel [Kral, Karel]; VENEROVA, Kv'yeta [Venerova, Kveta];
PETROV, Vladimir; YURIN, B.A., red.

[Concise encyclopedia of the international trade-union
movement] Kratkaiia entsiklopediia mezhdunarodnogo prof-
soluznogo dvizheniia. Moskva, Profizdat, 1963. 208 p.
Translated from the Czech. (MIRA 17:3)

HAUSNER, Jaroslav, inz. arch.; KRAL, Kiri, inz.

Service basement. Poz stavby 11 no. 8:420-423 '63.

1. Pozemni stavby, Plzen.

KRAL, I.

Correct method of organizing and developing socialist competition ensures successful fulfillment of the Plan p. 60, SKLAR A KERAMIK (Ministerstvo lehkého průmyslu) Praha, Vol. 1, No. 3, Mar. 1954

SOURCE: East European Accessions List (EEAL) Library of Congress, Vol. 4, No. 12, December 1954

KRAL, I.

May Day, a joyful review of work accomplished, p. 114, SKLAR A
KERAMIK (Ministerstvo lehkeho prumyslu) Praha, Vol. 4, No. 5,
May 1954

SOURCE: East European Accessions List (EEAL) Library of Congress,
Vol. 4, No. 12, December 1956

STRANEKY, Zdeněk; MLADKOVA, Mirka; KROMAROVA, Milena; KRÁL, Ladislav
Technická spolupráce: RANDOVA, Z.

Determination of sulfazathiazine levels in body fluids. Sborn.
ved. prac. lek. fak. Karlov. Univ. 7 no.4:563-568 '64.

1. Katedra lékařské chemie (prednásta: MUDr. I. Hais) a Klinika
nemoci infekcí (prednásta: prof. MUDr. J. Ondraček) Lékařské
fakult. Karlov. University v Praze, Československo.

KRAL, Ludvik, Dr.; PODZIMEK, Ales, Dr.

Surgical therapy of bronchial asthma. Ces. lek. cesk. 93 no.51-52:
1413-1419 24 Dec 54.

1. Z chir. oddeleni, prim. Dr. V.Kreisingera UNZ-ONV Praha 3
a z II chirurg. kliniky K.U. prof Dr. J.Divise
(ASTHMA, surgery)

ONDRACHEK, Ya.; KRAL', L.; BENDA, R.; BESHETS, M.; RUZHKOVA, L.

Outbreaks of aseptic forms of meningitis induced by ECHO virus
(type 9) in child centers. Sov.med. 23 no.12:81-86 D '59.

(MIRA 13:4)

1. Iz kafedry infektsionnykh bolezney (rukovoditel' - dotsent Ya.
Ondrachek) i iz kafedry epidemiologii (rukovoditel' - dotsent K.
Makovichka) meditsinskogo fakul'teta Karlova universiteta, Gradets-
Kralove, Chekhoslovakiya.

(MENINGITIS virol.)

(VIRUS DISEASES in inf. & child.)

KRAL, Indvik

Strangulated Treitz's hernia with relapsing pancreatitis. Rozhl.
chir. 38 no.7:475-479 July 59

1. I. chirurgické oddelení luskové části UNZ Praha 3, prednosta prim.
MUDr. Václav Germak.
(HERNIA, compl.) (PANCREATITIS, compl.)

KRAL, Ludvik (Praha 14, n. Hrdimu 8.)

Internal herniae in the region of duodenojejunal flexure region. Cas. lek.
cesk. 98 no.2:33-44 9 Jan 59.

1. Chirurgické oddelení lůžkové části UNX Praha 3, přednosta prim. MUDr.
Václav Cermák,

(HERNIA, internal
in duodenojejunal flexure region (Cz))

VONDRACKOVA, A.; VYMOIA, F.; VORTEI, V.; ONDRACEK, J.; KRAL, L.

Atypical form of lyssa. Cas. lek. cesk. 98 no.29-30:933-937
17 July 59

1. Ustredni mikrobiologicka laborator, prednosta MUDr. F. Vymola.
Ustav patologicke anatomie, prednosta prof. MUDr. D. Sc. A. Fingerland.
Klinika nemoci infekcnich, prednosta doc. MUDr. J. Ondracek. Vojenska
lekarska akademie Jana Ev. Purkyne v Hradci Kralove.
(RABIES, case reports)

KRAL, Indvik

On certain aspects of the etiopathogenesis of actinomycosis.
Cas. lek. cesk. 99 no.22:[Lek. veda zahr.]p.114-118 27 My '60.

1. Chirurgické oddelení nemocnice Na Františku[OUNZ Praha.3],
prednosta prim. MUDr. Václav Cermak.
(ACTINOMYCOSIS etiol.)

CERMAK, Vaclav; KRAL, Ludvik

Pathological pneumothorax. Cas. Lek. Cesk. 100 no.49:1552-1558 8 D '61.

1. Chirurgické oddelení nemocnice Na Františku (OUNZ-Praha 3), přednosta
MUDr. Václav Cermák.

(PNEUMOTHORAX)

KRAL, L.

Indication for surgical treatment of actinomycosis. Rozhl. chir. 41
no.12:833-840 D '62.

1. Chirurgické oddělení nemocnice OUNZ Praha 1, Na Františku,
prednosta MUDr. V. Germak.

(ACTINOMYCOSIS)

KRAL, L.

Horseshoe-shaped mesentery. Mesenterium commune arcuatum. Cas.
lek.cesk. 103 no.2:38-43 10 Ja'64

1. Chirurgické oddelení nemocnice Na Frantisku v Praze 1;
vedoucí: MUDr. V.Cermak.

*

KRAL, L.

Professor MUDr. Jaroslav Ondracek; 75th anniversary.
Sborn. ved. prac. lek. fak. Karlov. Univer.8 no.5:
527-528 '65.

KRAL, L., Praha 4, nam. Hrdinu 8; CERMAK, V.; MARIK, A.; SKOKAN, Z.V.;
SYROVY, J.

Leiomyomas of the lung. Cas. lek. Cesk. 104 no.42:1145-1149
22 0 '65.

1. Chirurgické oddělení nemocnice Na Frantisku v Praze 1
(vedoucí MUDr. V. Cermak), Rentgenologické oddělení nemocnice
Na Frantisku v Praze 1 (vedoucí MUDr. J. Syrový), Rentgenolo-
gické oddělení polikliniky Obvodního ústavu národního zdraví
v Praze 1 (vedoucí MUDr. Z.V. Skokan) a Tuberkulózní oddělení
polikliniky Obvodního ústavu národního zdraví v Praze 1 (vedoucí
MUDr. B. Vodicková). Submitted October 1964.

KRAL, Ladislav; PECHACEK, Miroslav; NADVORNIK, Pavel; VONDRACKOVA, Anna

Results of long-term observations of patients following tick-borne encephalitis. Sborn. ved. prac. lek. fak. Karlov. Univ. 8 no.5: 545-553 '65.

1. Infekční klinika (prednosta - prof. MUDr. J. Ondracek);
Neurochirurgická klinika (prednosta - prof. MUDr. R. Petr)
a Ústav lékařské mikrobiologie (prednosta - MUDr. O. Vejborn)
Krejského ústavu národního zdraví v Hradci Králové.

CZECHOSLOVAKIA

UDC 616.441-069-039.5-031.61

KRAL, L.; ZAJICEK, V.; CERMAK, V.; FEIX, V.; KOMAREK, R.; KOPAC, S.; Dept. of Surgery, Anesthesia and 2nd Internal, Hospital (Chir. Anest. a II. Int. Odd. Nemocnice) na Frantisku, Head (Vedouci) Dr V. CERMAK, Dr V. ZAJICEK, Dr R. KOMAREK; Otolaryngological Dept. Polyclinic of Okresni Inst. of Nat. Health (Otolaryngologicke Odd. Polikliniky OUNZ) Prague 1, Head (Vedouci) S. KOPAC; Int. Dept. Faculty Polyclinic, Charles Univ. (Int. Odd Fak. Polikliniky KU), Prague, Head (Vedouci) Prof Dr K. HERFORT.

"Surgery of the Thyroid Gland Under General Anesthesia."

Prague, Casopis Lekarů Českyh, Vol 105, No 27-28, 4 Jul 66, pp 744 - 750

Abstract /Authors' English summary modified 7: 567 thyroidectomies under endotracheal anesthesia with a fatality rate of 0.35% are described. In the past 6 years 404 operations (27 malignant, 184 toxic) were performed without a fatality. In 377 benign goitres unilateral damage was found in 7.7%, bilateral not at all. Endotracheal anesthesia is suitable in thyroid gland surgery . 6 Tables, 11 Western, 4 Czech, 1 Russian, 3 East German references. 1/1 (Ms. rec. Jul 65).

- 64 -

CZECHOSLOVAKIA

UDC 615.372(:576.851.551)-033-092.22

KRAL, L.; KYSELOVA, M.; Clinic of Infectious Diseases, Medical Faculty, Charles University (Infekční Klinika Lek. Fak. KU), Hradec Kralove, Head (Prednosta) Prof Dr J. ONDRACEK; Institute of Sera and Vaccines (Ustav Ser a Ockovacich Latek), Prague, Director (Reditel) Dr J. MALEK.

"To the Problem of Tetanus Antitoxin Resorption."

Prague, Casopis Lekarů Ceských, Vol 105, No 36-37, 9 Sep 66, pp 994 - 999

Abstract [Authors' English summary modified]: Dynamic investigation of the concentrations of tetanus antitoxin in the blood of 8 patients suffering from tetanus showed that the administration of 20-50,000 I.U.A.T.S. produces levels satisfactory for the treatment of tetanus; the antitoxin is absorbed within 2-3 hours and protective levels last for 14 - 21 days. Experiments on 2 subjects to whom 3000 I.U.A.T.S. were administered i.m. showed that the lymphatic system participates in the absorption and transportation of the antitoxin. 3 Figures, 3 Tables, 49 Western, 8 Czech, 3 Russian, 2 Indian references. (Ms. rec. May 66).
1/1

- 27 -

KRAL, Leon (Hungary)

Cracks to be found in shaft furnaces for lime burning. Przegl budowl i
bud mieszk 36 no.12:670-674 D '64.

KRAL, I.

Traffic regulations do not apply to street traffic? p. 348.
Again about the Mototechna selling hours. p. 349.
SVET MOTOŘ, Praha, Vol. 9, no. 11, May 1958.

30: Monthly List of East European Accessions, (KRAL), LC, Vol. 4, no. 10, Oct. 1955,
Encl.

KRAL, M.

"Yellow light; cause of trouble." p. 349.

SVET MOTORU. (Svaz pro spolupraci s armadou). Praha, Czechoslovakia,
Vol. 13, No. 11, May 1959.

Monthly list of East European Accessions (EEA1), LC, Vol. 8, No. 8,
August 1959.
Uncla.

KRAL, M.

Plan of a standardized terminal plate for direct-current machinery. p. 320.

ELEKTROTECHNIK. Vol. 11, no. 10, Oct. 1956

Praha, Czechoslovakia

SOURCE: East European List (EEAL) Library of
Congress, Vol. 6, No. 1, January 1957

VLCHEK, A.; KNEYFL, Ya.; IALBEK, Yu.; KRAL, M.

Enteral and parenteral dyspepsia. Vop. okh. mat. i det. 6 no.3:
15-22 Mr '61. (MIRA 14:10)

1. Iz otdela detskikh bolezney bol'nitsy v Klatovakh Instituta
gigiyeny meditsinskogo fakul'teta Karlova universiteta i mikro-
biologicheskoy laboratorii RGES v Klatovakh.
(DYSPEPSIA)

KRAL, M.

CZECHOSLOVAKIA/Optics - Optical Technology

K

Abs Jo r : Ref Zh r Fizika, No 9, 1959, 21282

Author : Kral, M.

Inst : -

Title : Optical Test Glasses

Orig Pub : Jemna mech. a opt., 1958, 3, No 9, 299-303

Abstract : S rvey article on the se of test glasses.

Card 1/1

- 116 -

KRAL, M.

"Apparatus for checking phase differences of phase rings used in microobjectives."

JEJMA MECHANIKA A OPTIKA, Praha, Czechoslovakia, Vol. 4, No. 3, March 1959.

Monthly List of East European Accessions (MLEA). 10, Vol. 4, No. 9, September 1959.

Unclassified.

KRAL, M., dr.

Automation of optical calculations. Jemna mech opt 5 no.2:
65-66 F 160.

1. Ustav pro vyzkum optiky a jemne mechaniky, Prerov.

KRAL, M., RNDr.; KALAB, V., promovany matematik

Beatless cams. Jemna mech opt 7 no.6:183-184 Je '62.

1. Ustav pro vyzkum optiky a jemne mechaniky, Prerov.

KRAL, M., RNDr.

Calculation of the Airy integral function. Jemna mech opt 8
no.11: 381-384 N°63.

1. Ustav pro vyzkum optiky a jemne mechaniky, Prerov.

KRAL, M.

"Orbitals in atoms and molecules" by Chr.Klilbull Jorgensen. Reviewed
by M.Kral. Chem listy 57 no.9:984-985 S '63.

L 10660-85

ACCESSION NR: AP4049555

Z/0030/64/000/007/0205/0207

AUTHOR: Kral, M. (Doctor of natural sciences), Kralab, VZ.

TITLE: Linear diaphragms

SOURCE: Jerna mechanika a optika, no. 7, 1964, 205-207

TOPIC TAGS: photographic diaphragm, photographic objective

Abstract [Authors' English summary, modified]: The problem of screening objectives by multiple plate diaphragms has been solved in only an approximative way. Formulae and diagrams are presented for an exact geometric solution and linearization of setting to be used in modern exposure techniques and automated cameras. Orig. art. has 4 figs. and 12 equations.

Card 1/2

L 10560-65		
ACCESSION NR: AP4049555		
ASSOCIATION: UVOJH, Prerov		
SUBMITTED: 18Apr64	ENCL: 00	SUB CODE: ES
NO REF SOV: 000	OTHER: 000	JPRS
Card 2/2		

KRAL, M.

"Chemical binding" by H. Hartmann. Reviewed by M. Kral. Chem
listy 59 no.3:343 Mr '65.

CZECHOSLOVAKIA
6 Jul 66

KRAL, Milan

Docent, Engr, head of the Department of the Theory of Management, Advanced School of Politics of the KSC Central Committee, addressed the opening session of the J.A. Komensky Festival, attended by the pedagogues from the entire country, Uherske Hradiste, South Moravian Kraj, 6 July

Rovnost, Brno, 7 Jul 66, p 3.

(1)

KRAL, MILAN

CZECH

Balt formation of semioxamazines. I. Salicylidene semioxamazine. Václav Hlavinka and Milan Kral (Vestník chem. práce, Prague). Chem. Listy 43:15-16 (1948).
Salicylidene semioxamazine, $o\text{-HOC}_6\text{H}_4\text{CH:NNHCOCO-NH}_2$, m. 255° (decompn.), was used in the form of its 1% soln. in aq. NH_3 , or 0.1% soln. in acetone, for the pptn. of the following salts: Pb, Cu (with 1 mol. NH_3 and 1 H_2O), Cd (with 2 H_2O), Mn, UO_2 (with 1.5 H_2O), Co (with 2 H_2O), Cr (with 0 and 1 H_2O), Sr, Bi, Fe^{III} (with 1 NH_3), and Al (with 2 NH_3). Coordination formulas are suggested for the salts, and an explanation is advanced for the existence of two different Fe salts obtained from different mediums.
M. Hudlický

Handwritten initials or signature.

KRAL, MILAN

CZECH

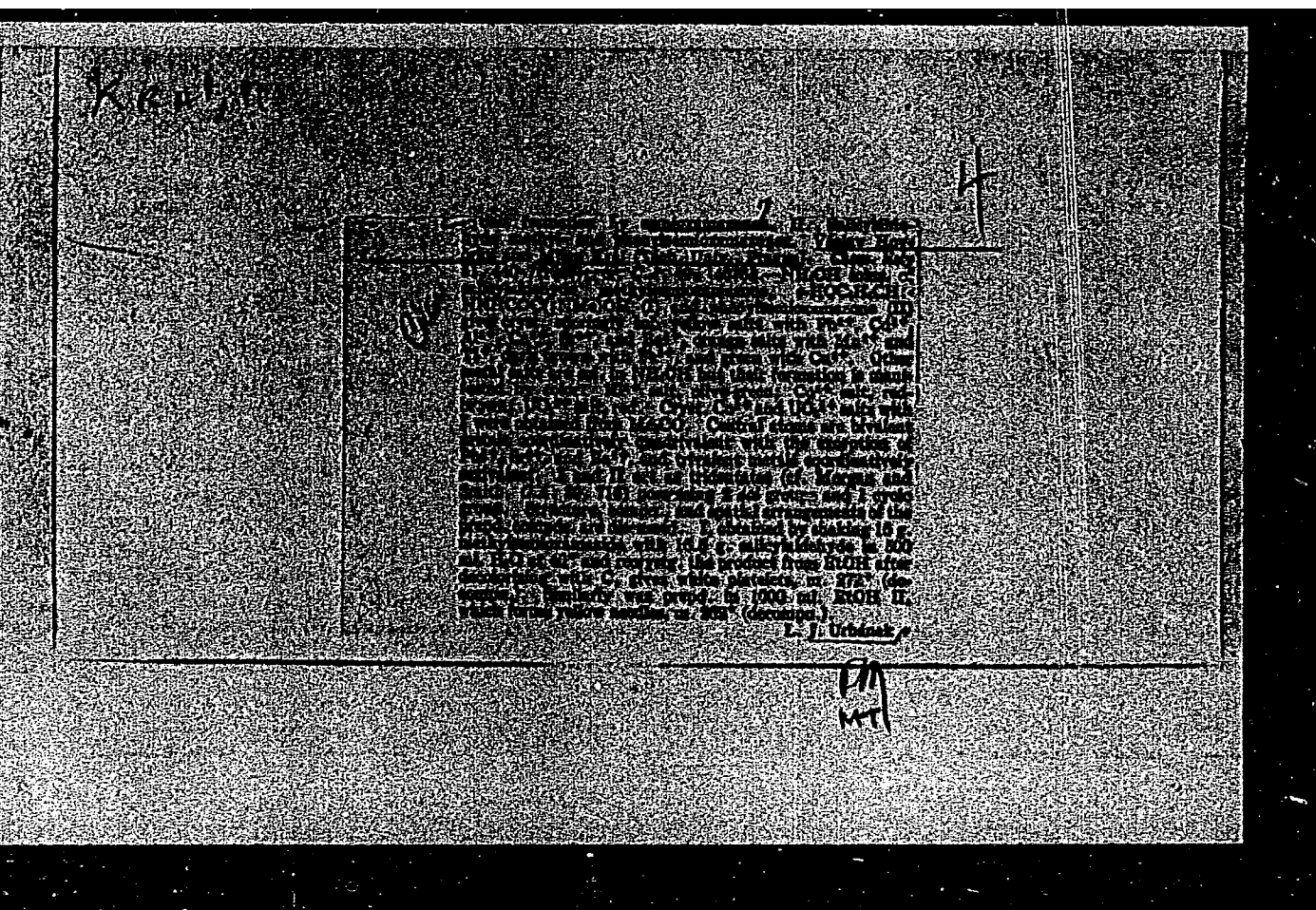
V. Salt formation of amoxamazine, I. Subeylidene
amoxamazine, Václav Hložek and Milan Kral, Chem.
Berlin. Collection, Chem. Commun. 20, 679-681 (1965) (in
English). - See C.A. 49, 11388c. E. J. C. 6

01

Country : CZECHOSLOVAKIA
 Category : Inorganic Chemistry. Complex Compounds
 Abs. Jour. : Ref Zhur-Khim, 1959, No 5, 14942
 Author : Hovorka, V.; Kral, M.
 Institut. : -
 Title : Salt-Formation by Semioxamazones. II. Salicylaldehyde Methyl- and Phenylsemioxamazone
 Orig. Pub. : Collect czechosl. chem. commun., 1958, 23, No 5, 901-909
 Abstract : No abstract.
 See Ref Zhur-Khim, 1958, 7406.

Card: 1/1

C-10



CZECHOSLOVAKIA/Inorganic Chemistry. Complex Compounds.

C

Abs Jour: Ref Zhur-Khin., No 24, 1958, 81002.

Author : Hovorka V., Kral M.

Inst :

Title : Metal Salts of Salicylaldehyde with Salicyloyl-hydrazone.

Orig Pub: Chem. listy, 1958, 52, No 1, 47-54.

Abstract: Complexes of the divalent Mg, Ca, Sr, Ba, Ni, Cu, Zn, Cd, Sn Pb and Mn were synthesized with salicyloylhydrazone of salicylaldehyde (I) forming the bi-cyclic innercomplex compounds having hexagonal and heptagonal ring structures. I was obtained at elevated temperature while an alcohol solution of salicylic acid hydrazide was

Card : 1/3

CZECHOSLOVAKIA/Inorganic Chemistry. Complex Compounds.

C

Abs Jour: Ref Zhur-Khim., No 24, 1958, 81002.

shaken with salicylaldehyde, followed by the recrystallization from alcohol. In the synthesis of complexes 1, solution of I in concentrated NH_3 was employed. The following complexes were obtained: $\text{RMg} \cdot \text{H}_2\text{O}$, RCa , RSr , RNa , RPb , $\text{RMn} \cdot \text{H}_2\text{O}$, $\text{RNi} \cdot 3\text{NH}_3 \cdot \text{H}_2\text{O}$, $\text{RNi} \cdot \text{NH}_3$, $\text{RNi} \cdot \text{C}_2\text{H}_5\text{N}$, RNi , $\text{RCu} \cdot \text{NH}_3 \cdot \text{H}_2\text{O}$, $\text{RZn} \cdot 2\text{NH}_3$, $\text{RZn} \cdot \text{C}_2\text{H}_5\text{N}$, RCd , $\text{RCd} \cdot \text{NH}_3$, $\text{RCd} \cdot 2\text{C}_2\text{H}_5\text{N}$, $\text{RSn} \cdot \text{NH}_3$, where $\text{R} = \text{C}_4\text{H}_9\text{O}_3\text{N}_2$, and RTl_2 with monovalent TI . The majority of metal complexes (the central atoms of which have the coordinating number of 4) are considered by the authors of having either a plain quadratic (Ni , Cu) or a tetrahedral (Zn , Cd , Sn , and Mg) structures. Complexes of both types form Mg (sic). The coordinated tri-valent Ca , Sr , and Pb form also bi-cyclic compounds,

Card : 2/3

8

CZECHOSLOVAKIA/Inorganic Chemistry. Complex Compounds.

C

Abs Jour: Ref Zhur-Khin., No 24, 1958, 81002.

as well as salts of Cd and Zn, obtained in the drying of amino-compounds. In the unstable green $RNi \cdot 3NH_3$ and in RDa the metals are the coordinated hex-valent similar to a La salt, one atom of which is bound with two molecules of I , that correspond to an octohedral structure. In the case of yellow RNi that contains one atom of Ni bound with one molecule of I (what would correspond to a tri-valent coordination) the saturation of the fourth valence is apparent which evidently occurs through the formation of a polymer with the hexa-membered rings bound by hydrogen bounds. -- Jiri Vanecek.

Card : 3/3

COUNTRY	:	Czechoslovakia	C
CATEGORY	:		
ABST. JOUR.	:	RZKhim., No. 21 1959, No.	74488
AUTHOR	:	Hoverka, V. and Kral, M.	
INST.	:	Not given	
TITLE	:	Isostructural Isometallic Chelates. I. Salts of the Salicylhydrazone of Salicylaldehyde with Divalent and Trivalent Iron	
ORIG. PUB.	:	Chem Listy, 52, No 9, 1710-1715 (1958)	
ABSTRACT	:	<p>Chelates of the salicylhydrazone of salicylaldehyde with Fe(2+) and Fe(3+) (see abstract No 74502 for definitions) of overall composition $C_{28}H_{22}O_6N_4Fe$ (I) for the Fe(2+) complex and $C_{28}H_{21}O_6N_4Fe$ (II) for the Fe(3+) complex have been prepared and studied. Salt I was prepared by mixing an aqueous solution of Mohr's salt, tartaric acid (+II), and $Na_2S_2O_4$ with a solution of the salicylhydrazone of salicylaldehyde in conc NH_4OH; the crystals of I are separated</p>	

CARD: 1/5

COUNTRY	:	Czechoslovakia	
CATEGORY	:		C
ABS. JOUR.	:	RZKhim., No. 21 1959, No.	74488
AUTHOR	:		
INVT.	:		
TITLE	:		
ORIG. PUB.	:		
ABSTRACT	:	<p>salt which separates is converted after 1 min into macrocrystals of II which are suction filtered and washed with ammonia. The salt of II is dark brown in reflected and transmitted light, and does not dissolve in nonpolar and in polar organic solvents. The DTA curves obtained for I in air show two endothermic effects (90-180°, 280-400°), whereas the curves for II show only one effect (360-420°). The thermogravimetrically established slower decomposition of I to Fe_2O_3</p>	

CARD: 3/5

COUNTRY : Czechoslovakia
CATEGORY :

AES. JOUR. : RZKhim., No. 21 1959, No.

74488

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : at elevated temperatures indicates, in the opinion of the authors, a stronger bonding of the ligand to the central atom than in the case of II. From the average measured heats of combustion of I (-2,952.5kcal/mol) and II (-3,215.9 kcal/mol), the authors have calculated heats of formation: -521.59 kcal/mol for I and -233.04 kcal/mol for II. The heat of combustion of I is considerably lower than that of II, notwithstanding the fact that the combustion is accom-

CARD: 4/5

70

COUNTRY : Czechoslovakia
CATEGORY :

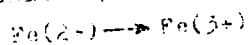
AES. JOUR. : RZKhim., No. 21 1959, No.

74488

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : guided by the exothermic oxidation reaction



and a reverse effect could therefore be expected. The authors are of the opinion that the difference in heats of combustion is due to the destruction of the strong bonds between the ligands and the central atom in I. Powder patterns are given for I and II and probable structures are proposed for these compounds.

J. Vanecek

CARD: 5/5

KRAL, M.

1-3
Jog (vrb)

/ Metal salts of salicylaldehyde salicyloylhydrazones. II
Magnetochemistry of Mn^{++} and Ni^{++} complexes. M. Král
(Vysoká škola chem. technol., Prague). *Collection Czech.
Chem. Commun.* 25, 883-8 (1960) (in German); cf. Hovorka
and Král, *CA* 53, 10106d. — Salicylaldehyde salicyloylhydra-
zone forms with Mn^{++} an extracoordination tetrahedral complex
 $C_{12}H_{10}MnN_2O_7 \cdot H_2O$ of $\mu_{eff} = 5.63$ Bohr magneton. Ni^{++}
forms a green octahedral paramagnetic compd. $C_{12}H_{10}Ni$
 $NiO_4 \cdot 3NH_3 \cdot H_2O$, $\mu_{eff} = 2.89$; a yellow paramagnetic
compd. with a trigonal planar structure $C_{12}H_{10}NiNiO_4$,
($\mu_{eff} = 2.97$); and a red diamagnetic compd. with a planar
tetragonal structure. M. Hudlický

main

KRAL, M.

"Magnetism and the chemical bond" by J.B.Goodenough. Reviewed
by M.Kral. Chemistry 58 no. 4:478-479 Ap '64.

KHAL, M.

Notes on the selection of the standard substance in magneto-chemistry. Chem Oz Chem 29 no.11:2841-2844 N '64.

1. Institute fur analytische Chemie, Technische Hochschule fur Chemie, Prague.

KRAL, M.

"Group theory and quantum mechanics" by M. Tinkham. Reviewed by
M. Kral. Chem listy 53 no.12:1458 p. 164.

KRAL, Otokar, dr.

The new Law on Technical Standardization and Industrial Safety.
Normalizace 12 no.12:333-335 D '64.

1. Central Council of Trade Unions, Prague.

ACC NR: AP700531

SOURCE CODE: UR/0131/67/000/001/0055/0060

AUTHOR: Klyucharov, Ya.V.; Kral', O.A.

ORG: Leningrad Technological Institute im. Lensovet (Leningradskiy tekhnologicheskii institut)

TITLE: Technical properties of composition of the $MgO-Cr_2O_3-ZrO_2$ system

SOURCE: Ogneupory, no. 1, 1967, 55-60

TOPIC TAGS: refractory metal, compressive strength, porosity,
metal deformation, magnesium oxide, chromium oxide, zirconium
oxide, metal bonding

ABSTRACT:

It is well known that because of some specific properties, high-melting Mg, Cr, and Zr oxides cannot be used individually for the preparation of refractories. Refractories with desirable properties may be obtained from mixtures of preliminarily heat-treated MgO , Cr_2O_3 , and ZrO_2 . The main purpose of this article is to study the technical properties of compositions containing MgO in amounts enough to bond completely Cr_2O_3 into $MgCr_2O_4$ and to stabilize ZrO_2 . The ultimate compression strength, apparent density, apparent porosity, temperature of deformation under stress, linear setting, and chemical stability with respect to CaO and Fe_2O_3 were determined for

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UDC: 666.76.001.5

ACC NR: AP7005314

seven specimens of $\text{MgO}-\text{Cr}_2\text{O}_3-\text{ZrO}_2$ refractories of different composition. The specimens were obtained by sintering mixtures of dry (at 120C) uncalcined ZrO_2 , calcined (at 1300 and 1600C) MgO , and MgCr_2O_4 . The latter was obtained by sintering mixtures of pure MgO and Cr_2O_3 at 1400 and 1750C. Composition of the refractories before and after firing are given in Table 1. Properties of the compositions are shown in Tables 2 and 3.

Table 1. Composition of specimens studied, %

No		Initial composition			Final phase composition		
Group	Specimen	Monoclinic ZrO_2	MgO	Cr_2O_3	Cubic ZrO_2	MgCr_2O_4	MgO
I	7	89,2	6,0	4,8	94,0	6,0	—
	9	69,2	9,4	21,3	73,0	27,0	—
	12	48,4	31,7	19,9	51,0	25,2	23,8
II	10	31,7	15,6	52,7	33,2	66,8	—
	13	15,0	29,4	55,6	15,8	70,3	13,9
	15	—	21,0	79,0	—	100,0	—
III	14	20,6	53,9	25,5	21,7	32,3	46,0

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ACC NR: AP700531

Table. 2 Properties of the specimens after firing at 1730C

Properties	Group No.						
	I			II		III	
	Specimen No.						
	7	9	12	10	13	15	14
Linear setting, %	11,3	13,5	13,4	12,7	12,2	9,0	12,4
Apparent density g/cm ³ . .	5,3	5,1	4,4	4,6	4,2	3,7	3,9
Ultimate compression strength kg/cm ²	4500	5000	5500	not determined	4500	not determined	4500

Analysis of the experimental data showed that dense, chemically and mechanically stable specimens of the MgO—Cr₂O₃—ZrO₂ system which have a high deformation temperature (above 1720C) under load (2 kg/cm²) may be obtained from mixtures containing uncalcined ZrO₂, MgCr₂O₄, and MgO (calcined at 1600C) with the final firing temperature of the refractory being 1700—1750C. Group I composition with high ZrO₂ content has better

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ACC NR: AP7005314

Table 3. Properties of specimens after firing at 1750C

Table 3. Properties of specimens after firing at 1750°C								
Properties	Group No.							
	I			II			III	
	Specimen No.							
	7	9	12	10	13	15* ¹	14* ²	14* ³
Temperature of deformation under load 2 kg/cm ² , C . . .	>1800	1770	1780	1740	1730	1680		1720
Linear setting, %	19.1	14.9	14.6	7.3	3.2		8.8	9.2
Apparent porosity, %	2.2	4.4	8.4	17.7	23.6	12.5	10.5	10.9
Apparent density (volume weight) g/cm ³	5.2	4.7	4.3	3.9	3.4	4.5	3.7	3.6
Ultimate compression strength kg/cm ²	3600	>4300	3400	3400	2500	1100	1600	3700

*¹ Literature data

*² MgO calcined of 1300C

*³ MgO calcined at 1600C

*1 Literature data

*2 MgO calcined of 1300C

*3 MgO calcined at 1600C

technical properties than group II and III (see Table. 2). The addition of ZrO₂ to spinellide-periclase compositions increases their density and chemical stability with respect to CaO; the addition of MgCr₂O₄ improves their stability with respect to iron oxides. [PS]

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 013/ OTH REF: 002/

ATD PRESS: 511'

Card 4/4

¹
Sibnite from Zlatá Baňa (Czechoslovakia). Alois Duban-
sky and Richard Král (Vysoká škola chem. technol.,
Prague). Sborník vysoké školy chem.-technol. v Praze 1957,
129-31. — Conometric data and an analysis are given for
sibnite found in Zlatá Baňa (Near Prešov, Slovakia) in
Tertiary andesite. M. Hudlický

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1/1

CR

KRAL, R.

Geochemistry of mercury

P. 524 (Chemie) Vol. 9, No. 4, Aug. 1957, Czechoslovakia

SO: MONTHLY INDEX OF EAST EUROPEAN ACCESSIONS (EEAI) LC. - VOL. 7, No. 1, Jan. 1958

VOTAVOVA, Zdenka; KRAL, Richard

Distribution of germanium in Kladno Basin. Sbor chem tech no.3,
part 2:337-352 '59.

1. Katedra mineralogie, Vysoka skola chemicko-technologicka, Praha
a Laborator anorganicke chemie Ceskoslovenske akademie ved, Praha.

KRAL, Richard

Augites from Vlci Hora near Cernotin. Sbor chem tech no.3, part 2:
115-132 '59.

1. Laborator anorganické chemie, Československá akademie věd,
Praha a Katedra mineralogie, Vysoká škola chemicko-technologická,
Praha.

TALANDOVA, Marie; KRAL, Richard

Pyrrothine deposit in Obri Dul. Sbor chem tech 4, no.1:363-375 '60.
(EEAI 10:9)

1. Katedra mineralogie, Vysoka skola chemicko-technologicka a Ustav
anorganicke chemie, Ceskoslovenska akademie ved.

(Pyrrothine)

KRAL, Richard

Petrochemistry of west Bohemian basalts I, II. Sbor chem tech 4
no.1:401-444 '60. (EEAI 10:9)

1. Katedra mineralogie, Vysoka skola chemicko-technologicka, Praha
a Ustav anorganicke chemie, Ceskoslovenska akademie ved, Praha.

(Basalt)

KRALOVA, M.; KRAL, R.; FIALA, I.

Pyropes from the Carboniferous sediments of the Ceské
Stredohori. Izv. AN SSSR. Ser. geol. 29 no.4:68-73 Ap'64.
(MIRA 17:5)

1. Institut geokhimii i mineral'nogo syr'ya Chekhoslovatskoy
Akademii nauk, Praga.

KRAL, S.

Utilization of Slovak tufts in a lightweight building-materials factory. p. 310.

STAVEA. (Poverenictvo stavebnictva) Bratislava, Czechoslovakia. Vol. 6, no. 10, Oct. 1959.

Monthly List of East European Accessions (SEAI) IC, Vol. 2, No. 12, Dec. 1959
UNCL

KRAL, S., dr.

Some problems of the technical development of porous concrete.
Stavivo 41 no. 12: 436-437 D '63.

1. Lahke stavebne hmoty, n.p., Bratislava.

KRAL, Stefan, dr.

New products from porous concrete. Tech praca 15
no. 12: 1025-1026 D '63.

KRAL, S., dr.

"Light concretes" by V.Figus. Reviewed by S.Kral. Stavivo
40 no. 6:239 '64.

10044, 5.

TRAIL, E.; KYSEL, B.

Polarographic determination of tin in tungsten and tantalum-nickel alloys and in steel. p.568 (Chemické Listy. Praha. Vol. 46, No. 12, Dec. 1952)

36: Monthly List of East European Associations, (JMAL), 18, Vol. 4, No. 6, June 1951, Czech.

KRAL, S.

Kysil, B.; Kral, S. "What A Steelworker Should Know About a Chemical Laboratory."
p. 134, (Hutník, Vol. 3, no. 6, June 1953, Praha)

SO: Monthly List of East European Accessions, Vol. 3, no. 2, Library of Congress,
February 1954, Uncl.

KRAL, S.

Kysil, B.; Kral, S. "What A Steelworker Should Know About the Chemical Laboratory."
p. 179 (Hutník, Vol. 3, no. 7/8, Aug. 1953, Praha)

SO: Monthly List of East European Accessions, Vol. 3, no. 2, Library of Congress,
Feb. 1954, Uncl.

~~SECRET~~ KRAL Stanislav

CZECH

The use of polarography for determining secondary elements in ferrocenes. Bohdan Kral and Stanislav Kral. *Chemical Abstracts*, 47: 8 (1956) -- Directions are given for the determination of Ni, Cu and Pb and Zn. -- Petr Schneider.

of gm

KRAL, S.

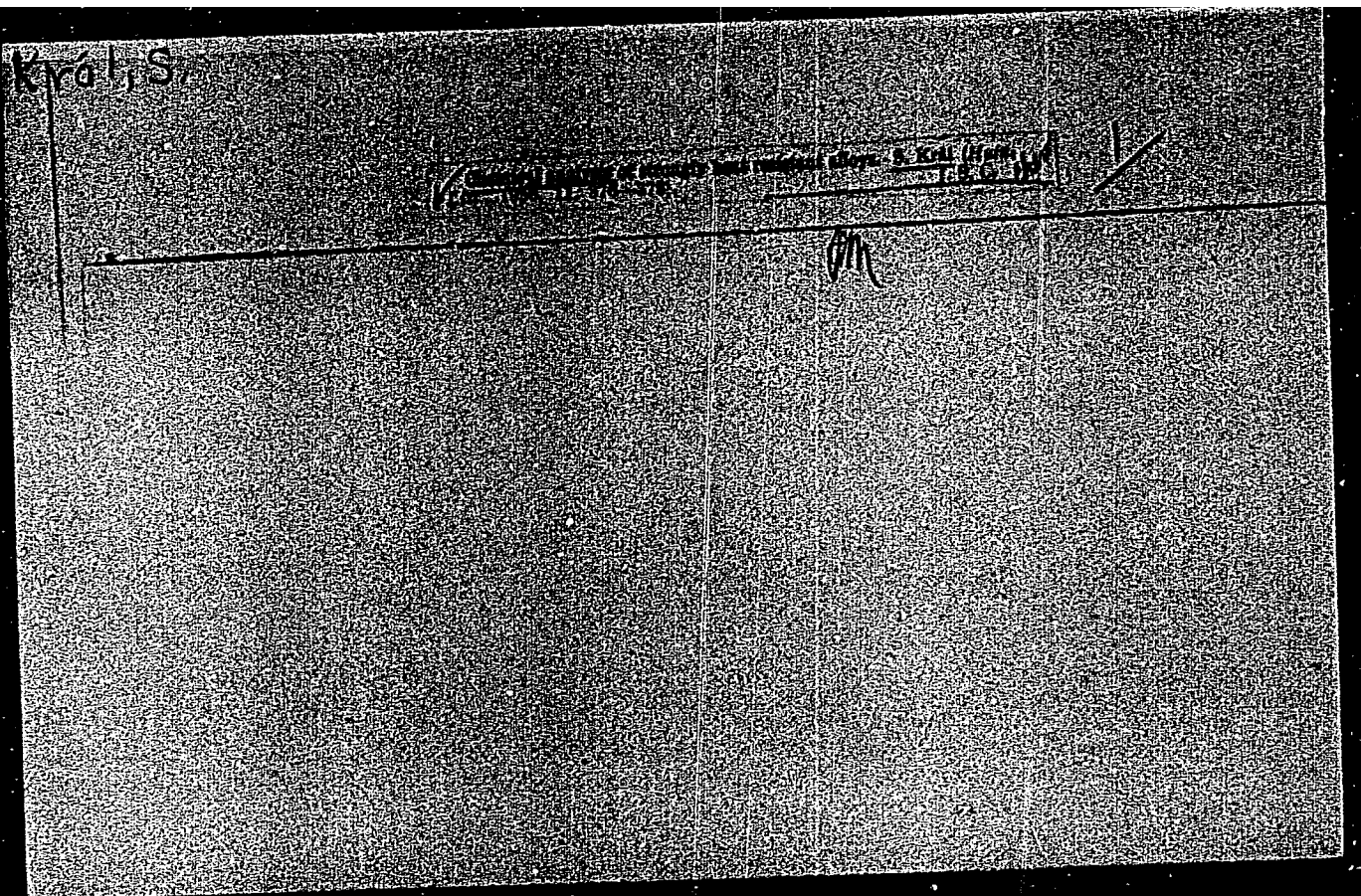
Complete Determination of Nickel Arsenide Type Nickel
Ors. S. Kral. (Hutnicki Listy, 1936, 10, (3), 64-65). (In
Pr. Czech. Republic)

21
HST

KRAL, S.

Chemical analysis of alloys with high heat resistance. p. 356. HUTNICKE
LISTY. (Ministerstvo hutního průmyslu a rudního dolu) Brno. Vol. 11,
no. 6, June 1956.

SOURCE: East European Acquisitions List, Vol. 5, no. 9, September 1956



KRAL, S.

27 3

Polarographic determination of small amount of zinc in ferromanganese and manganese ores containing cobalt. Stanislav Kral and Bohdan Kysil. *Hutnicki listy* 13, 716-17 (1958).—The sample is melted with Na_2O_2 . After leaching, the ppt. of Co, Mn, and other elements is filtered off and Zn in the filtrate is detd. polarographically as Na zincate in an ammoniacal medium. 1 reference. Petr Schneider

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CZECHOSLOVAKIA / Analytical Chemistry. Analysis of Inorganic Substances. E-2

Abs Jour: Ref Zhur-Khimiya, No 1, 1959, 985.

Author : Kral, S., Vobora, J.

Inst : ~~Not given.~~

Title : The Analysis of Calcium Tungstate.

Orig Pub: Hutnicke listy, 1958, 13, No 5, 429-430.

Abstract: The methods for determining tungstic acid in the following compounds were described: $\text{Hg}(\text{NO}_3)_2$, CO_2 , Mo, Cr and V, P, Fe_2O_3 , Al_2O_3 , TiO_2 , MnO, CaO, MgO, SiO_2 , As_2O_5 , CuO, SnO_2 and SO_3 in scheelite and other minerals, containing CaWO_4 . -- T. Levi.

Card 1/1

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000826020007-6
CZECHOSLOVAKIA / Analytical Chemistry. Analysis of Inorganic Substances.

Abs Jour: Ref Zhur-Khim, No 12, 1959, 42101.

Author : Kral, S.; Sedlar, J.

Inst : ~~Not given.~~

Title : Titrimetric Determination of Silicon in Ferrochrome Silicon.

Orig Pub: Hutnicke listy, 1958, 13, No 9, 812.

Abstract: Two methods of determination of Si in ferrochrome silicon are described: dissolving and fusion. In the first method, a crushed sample (0.2 g.) is dissolved by cooling in a mixture of 20 ml. of diluted HNO_3 (1:1) and 8 ml. of HF. 12 g. of solid KNO_3 are added to the solution, which is kept for 15 minutes. The deposit K_2SiF_6 is filtered, washed

Card 1/2

E-12

KRAL, S.

TECHNOLOGY

periodicals: HUTNICKE LISTY Vol. 13, no. 10, Oct. 1958

KRAL, S. Chemical analysis of manganese ores. p. 925

Monthly List of East European Accessions (EEAI) LC Vol. 8, no. 5
May 1959, Unclass.

AUTHOR: Král, Stanislav

CZECH/34-59-9-16/22

TITLE: Chemical Analysis of Tantalum-Niobium Ores and Concentrates

PERIODICAL: Hutnické listy, 1959, Nr 9, pp 807-809

ABSTRACT: Chemical analysis of ferrotantalum-niobium is considered as being one of the most complicated and most laborious analysis in metallurgy. Several authors (Refs 1 and 2) have dealt with analysis of ferrotantalum-niobium. However, almost no information has been published on the analysis of ores and concentrates of this material. Since ferrotantalum-niobium and the respective raw materials are frequently analysed in the laboratory of the author, the analytical analyses, and particularly the analytical methods applied in the laboratory of the author, are described in this article. For determining the oxides of silicon, niobium, tantalum, titanium and iron a single charge is used. The determination of each of these, as well as other elements present in the ore, is described. There are 2 tables and 3 references, 1 of which is Czech, 1 English and 1 German.

ASSOCIATION: SONP Kladno
Card 1/1

KRAL, V.

The situation and the future development of gas turbines in the Lenin Works in Plzen.
(Supplement)

P. 8. (ENERGETIKA) (Praha, Czechoslovakia) Vol. 8, no. 1, Jan. 1958

30: Monthly Index of East European Accession (EEAI) LC Vol. 7, No. 5, May 1958

KRAL, U.

30(7)

YUG/1-59-1-7/67

AUTHOR:

Velickovic, Dr. Doctor of Engineering and Professor

TITLE:

The Twelfth Special Session of the World Power Conference

PERIODICAL:

Tehnik, 1959, No 1, PP 201-201 (YUG)

ABSTRACT:

The Twelfth Special Session of the World Power Conference was held from 10 to 12 September 1959 in Montreal. The Twelfth Special Session of this Organization was held in Belgrade in 1957. The theme of the Twelfth Special Session in Canada was "Economic Trends in the Production, Transmission and Utilization of Fuel and Power". Various papers were read by delegates from various countries including the USSR, Poland, Czech, and Yugoslavia. The USSR delegates were: V. K. Kramin on "Economic Principles for Calculating the Capacities of Hydropower Plants"; A. I. Kramin on "Formation of a Single Inter-connected K. Railway on 'Formation of a Single Inter-connected

Card 1/3

Electric Power Network in the USSR, its Significance for the National Economy and its Economic Indicators"; D. Tuzar and V. Tuzar on "Efficiency of Fuel Utilization in 'Economic Advantages'"; V. Tuzar and V. Tuzar on "Economic Advantages of the Use of Electric Power in Agriculture"; and I. Duzak on "Technical and Economic Problems of 'Energy' Electric Power in Villages". The Polish delegates presented the following papers: Professor A. Kramin on "The Role of the Upper Limit of Mineral Insulation in the Development of Mineral Traction in Profitable and the Effects of Mineral Traction on the Use of Coal for Power"; and A. Kramin on "Analysis of the Use of Coal for Power with Traction in an Electric Power System". The other papers were: V. Kramin on "The Use of Coal for Power with Traction in an Electric Power System"; and V. Kramin on "The Use of Coal for Power with Traction in an Electric Power System". The other papers were: V. Kramin on "The Use of Coal for Power with Traction in an Electric Power System"; and V. Kramin on "The Use of Coal for Power with Traction in an Electric Power System".

Card 2/3

..... The Yugoslav delegates presented the following papers: Doctor of Engineering V. Kramin on "The Role of the Upper Limit of Mineral Insulation in the Development of Mineral Traction in Profitable and the Effects of Mineral Traction on the Use of Coal for Power"; and A. Kramin on "Analysis of the Use of Coal for Power with Traction in an Electric Power System". The other papers were: V. Kramin on "The Use of Coal for Power with Traction in an Electric Power System"; and V. Kramin on "The Use of Coal for Power with Traction in an Electric Power System". The other papers were: V. Kramin on "The Use of Coal for Power with Traction in an Electric Power System"; and V. Kramin on "The Use of Coal for Power with Traction in an Electric Power System".

Card 3/3

KRAL, V.

Docent Dr. Frantisek Pachner, octogenarian. Cesk. gyn. 28 no.1/2:
6-9 F '63.

(BIOGRAPHIES)

KRAL, VACLAV

Fysicky zemepis SSSR. (Vyd. 1.) Praha, Statni pedagogicke nakl. (Ucetni
texty vysokych skol) (Physical geography of the USSR; a university textbook.
1st ed. map (fold. in pocket)
Vol. 2. 1954. 225 p.

SOURCE: Monthly List of East European Accessions (EEAL), LC, Vol. 5, No. 3,
March 1956

KRAL, V.

Counting and display discharge tubes made in the German
Democratic Republic. Automatizace 6 no.10:258-259 0 '63.

1. Ustav hygieny prace a chorob z povolani, Praha.

MAZACOVA, K.; PRIBYL, V.; CHROBOK, J.; KEPKOVA, B.; KRAL, V.; KUNSKY, J.

Geomorphological development of the Tyn nad Vltavou
region. Sbor zem 68 no.4:317-327 '63.

VANECK, Frantisek; KRAL, Vaclav; BOSEK, Josef; UHLIR, Josef

Our Experience with CT sand. Slevarenstvi 9 no.12:472-475 D '61.

1. Zavody V.I.Lenina, Plzen.

KRAL, Vaclav

On the geomorphology of the Elbe River valley in Ceske Stredohori
Mountains. Sbor zem 68 no.1:61-63 '63.

OSOLSOBE, J., dr., inz.; HOMOLA, F., inz.; KUCERA, F., inz.; PAVLICEK, Z., inz.; KUBINEC, R., inz.; CABELKA, J., akademik; SIMUFDA, L. inz.; JUZA, J., dr., inz.; ~~KHAL, V.~~, inz.; POSPISIL, J., inz.; DOLEZAL, R., prof., dr., inz.; ZEMAN, VL., inz.; LIMPOUCH, B. inz.; SVAB, V., dr., inz.; LASKA, L., inz.; JAHODAR, V., inz.; KOHN, F., inz.

Development of power installations over a long period of time; summary of reports made at the 7th Conference of Power engineers in Bratislava, September 6-8, 1960. Energetika Cz 11 no.3: Suppl: Energetika 11 no.3:1-23 '61.

1. Chlen korespondent Ceskoslovenske akademie ved (for Osolsobe).

BRENIK, Premysl, prof., dr., inz.; KROUPA, J., doc., inz.; HALA, F.; BUDIN, M., inz.; JERIE, J., inz., dr.; BELIK, inz., C.Sc.; KACER, inz.; BUKOVSKY, J., prof.; KUNES, J., inz.; MARCELLI, V., dr., inz.; VILD, B.; EMINGER, Z., Dr.Sc.; SKARECKY, inz.; DRAHY, J., inz.; MASEK, J., inz.; DOLEZAL, inz.; URBANEK, J., inz., C.Sc.; JUZA, dr., inz.; BEQVAR, Josef, prof., inz.; KRAL, V., inz.; BALOS, inz.; KELLAR, J.; POSPISIL, J., inz.

A conference on heavy-duty steam and gas turbines in Plzen. Energetika Cz 11 no.5:259-262 My '61.

1. Vysoka skola strojni a elektrotechnicka, Plzen (for Brenik, Bukovsky and Becvar). 2. Ministerstvo tezkeho strojirenstvi (for Kroupa). 3. Ceskoslovenska akademie ved (for Pospisil). 4. Leninovy zavody, Plzen (for Hala, Marcelli, Belik, Vild, Eminger, Drahy, Masek, Urbanek, Juza, Kral and Dolezal). 5. Prvni brnenska strojirna, Zavody Klementa Gottwalda (for Budin and Balos). 6. Statni vyzkumny ustav tepelne technicky (for Jerie, Kacer and Skarecky). 7. Glen korespondent Ceskoslovenske akademie ved (for Jerie and Juza).

KRAL, Vaclav

Wages of flight personnel. Letecky obzor 6 no.10:318-319 '62.

Synthesis of 2,3-bis-alkylmercapto-propanols. I. A. Kottil and V. Kral. *Collection Czechoslov. Chem. Commun.* 14, 219-22 (1949) (in English). $\text{CH}_3\text{BrCH}_2\text{CH}_2\text{OAc}$ (I) and MeSSa in abs. EtOH at 20° gave 58% $\text{CH}_3(\text{SMe})\text{CH}_2(\text{SMe})\text{CH}_2\text{OH}$ (Ic), bp. 124° , and MeSSa (Ic) 40% EtSSa and 4 gave 62% $\text{CH}_3(\text{SEt})\text{CH}_2(\text{SEt})\text{CH}_2\text{OH}$ (Ic), bp. 140° , and 4.68% bp. 65° . PhCH_2SSa and I gave $\text{PhCH}_2(\text{SPh})\text{CH}_2(\text{SPh})\text{CH}_2\text{OH}$ (II) which decompd. on distn. at 0.6 mm , PhCH_2OH was isolated from the distillate in the distn. of II.

P. M. Downey

CA

Synthesis of β -2-thienylalanine J. V. Kotal and V. Kral. *Collection Czechoslov. Chem. Commun.* 14, 261 (1949) (in English). --Thiophene prepd. by the distn. of $(CH_3CO)_2Na_2$ with P_2S_5 was converted to 2-thienylmethyl chloride (I) according to the method of Blücke and Burekhalter (*C.A.* 36, 2551). $HCO_2NHCH(C_6H_5)_2$ (20.4 g.; cf. Galat, *C.A.* 41, 4106) and 2.29 g. Na in 150 cc. abs. EtOH, treated with 13.3 g. I and the mixt. heated 30 min. on the H_2O bath, poured into ice- H_2O , and dried first over H_2SO_4 and then over P_2O_5 gave 28 g. *Et formamido-2-thienylmalonate* (II), m. 112.5° (from EtOH); II could not be hydrolyzed and decarboxylated directly with HCl (cf. Rör, *Chem. Zvest* 42, 6 (1948)). II (15 g.) and 15.7 g. $Ba(OH)_2 \cdot 8H_2O$ in 100 cc. H_2O refluxed 2 hrs. gave 15 g. *Ba formamido-2-thienylmalonate* (III). III (3.78 g.) and 10 cc. 2 *N* H_2SO_4 were refluxed for 30 min.; the hot reaction mixt. filtered, the filtrate taken to dryness under reduced pressure, the residue treated with 10 cc. concd. HCl, refluxed for 10 min.; the HCl distl. off, and the HCl treatment repeated; the dry residue in 20 cc. EtOH added to 100 cc. pyridine gave 1.0 g. (60%) β -2-thienylalanine, m. 274-6° (decompn.) (cf. Barger and Easson, *C.A.* 33, 1892°). P. M. Downey

C. A.

A NEW SYNTHESIS OF 6-METHYL-2⁴-DITHIOURACIL. J. V. Koltík
and V. Král. Chem. Listy 43: 37(1949).--Thiourea (1.1 g.) in
2% MeCSCH₂CSOEt was added to 0.56 g. Na in 20 ml. abs. EtOH.
the brown reaction mixt. refluxed 30 min. at 160°, the EtOH
distd. in vacuo, the brown salt dissolved in 20 ml. H₂O, acidified
with HCl to Congo red (H₂S escaped), the ppt. filtered off, washed
with EtOH, reprecipitated from 2 N NaOH, and the yellow ppt. washed with
water; it is sol. in alk. solns., insol. in acids and org. solvents,
decomp. above 260°. Milos Hudlický

KRAL, VACLAV

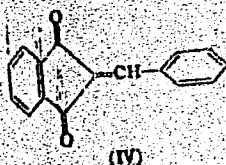
Choline salt of nicotinic acid. Jan Štěpán, Václav Král,
and Miroslav Jureček (Charles Univ., Pilsen, Czech.).
Chem. Listy 47, 233-8 (1953).—*Choline nicotinate* (I) was
prepd. either by mixing ethylene oxide and Me₃N with nico-
tinic acid (II), or by neutralizing II with a 45-80% soln. of
choline obtained by vacuum concn. of a 12-19% soln.
prepd. from choline chloride and Ag₂O. I was obtained in
74-83% yield, hygroscopic crystals, m. 68-69°, sol. in H₂O,
EtOH, and dioxane; insol. in Et₂O, Me₂CO, and CHCl₃,
neutral to litmus; decomp. above 100°. M. Hudický

AA *[signature]*

KRAL, VACLAV

CZECH

The preparation of indandione from simple reagents. Jan Sidor and Václav Král (Karl Univ., Pilsen, Czech.). *Časopis Lékařů Československa* 10(1963). Indandione (I) can be prep'd. from com. di-*tert*-phthalate and AcOEt in the Claisen condensation, if one uses the Na in scale form and purifies the poly. with coarse grained active carbon. The intermediate product, i.e., the Na salt of the Et ester of 1,3-dioxindan-2-carboxylic acid (II), is obtained in 48% yield, or in 71% yield, if the reaction is run under pressure in abs. EtOH for 90 min. at $100-10^\circ$. II furnishes upon treatment with dil. H_2SO_4 the I as usual, which is then oxidized with SeO_2 in an H_2O -dioxane mixt. to ninhydrin (III). I can be condensed with H_2N to furnish benzaldioxindan (IV) in 50% yield, which was purified by chromato-



(IV)

graphic adsorption on Al_2O_3 ; it was eluted with CHCl_3 - C_6H_6 and recrystd. from MeOH, m. 150° . Oxidation of IV in a dry way to obtain III was attempted, but the results were negative if CrO_3 , MnO_2 , PbO_2 , PbO , or H_2O_2 were employed. 1,2,3-Trioxindan was obtained from III by the action of Ac_2O . Werner Jacobson

KRAL, V, STEPAN, J., JURECEK, M.

CZECHOSLOVAKIA

Ueber Cholinergic reprodukte

From the Institute for Medical Chemistry of Charles University, Plzen and the
chair for analytical chemistry of the Chemical-Technological University in Pardubice.

SO: Die Pharmazie, Dec 1955, Unclassified.

KRAL, V

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CZECH

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The chelating ester of nicotinic acid. J. Štěpán, V. Král, and M. Jureček (Karlovy Univ., Písek, Czech.). *Chem. Listy* 49, 144-5 (1955).—Refining 123.1 g. nicotinic acid (I) with 4 times the amt. of SOCl_2 0.5-1 hr., evap. the soln. in *vacuo* to 250 ml., adding 139.5 g. $\text{HOCH}_2\text{CH}_2\text{NMe}_2\text{Cl}$ (II), and crystg. the solidified mixt. from 95% EtOH gave 40% 3-C₄H₄NCO₂CH₂CH₂NMe₂Cl·HCl (III), m. 200-3°, resistant to hydrolysis by refluxing 6 hrs. with dil. alkalis or 3 hrs. with dil. HCl. Treatment of 3 g. III with Ag₂O in H₂O gave I (free and as Cu salt), and an addn. compd. of II with 6 HgCl₂. Dipicrate of 3-C₄H₄NCO₂CH₂CH₂NMe₂·(C₆H₅N₂O₄), m. 164-5°; dipicchlorate, m. 214.5-16° (from H₂O); trimercuric dipicchloride (dihydrate), m. 170-1° (from 50% EtOH); dichloraurate, m. 230-1° (from 55% EtOH contg. 5% HCl). Paper chromatography on Whatman paper no. 1 at 18° in mixts. 4:2:1 BuOH-PrOH-H₂O, 2:5:2 PhCH₃OH-PrOH-H₂O, and 4:1:1.5 BuOH-AcOH-H₂O gave the following *R_f* values: for I 0.35, 0.51, 0.78; for II, 0.14, 0.23, 0.27; for III 0.09, 0.24, 0.18. M. Hudc.